FUTURE FISHERIES IMPROVEMENT PROGRAM
GRANT APPLICATION
(please fill in the highlighted areas)

I. APPLICANT INFORMATION

A. Applicant Name: Watershed Restoration Coalition of the Upper Clark Fork River

B. Mailing Address: 1002 Hollenbeck Rd.

C. City: Deer Lodge State: MT Zip: 59807

Telephone:

D. Contact Person: Will McDowell, Project Coordinator, WRC

Address if different from Applicant:

City: State: Zip:

Telephone: (406) 396-7716

E. Landowner and/or Lessee Name (if other than Applicant): Doug Johnson

Mailing Address: 100 Emery Rd.

City: Deer Lodge State: MT Zip: 59722

Telephone: (406) 846-3468

II. PROJECT INFORMATION*

A. Project Name: The Cottonwood Creek Johnson Ranch Project

River, stream, or lake: Cottonwood Creek tributary to the Upper Clark Fork

Location: Township 8N Range 9W Section 34

County: Powell

B. Purpose of Project:

Restore the natural channel and floodplain characteristics in a channelized reach of Cottonwood Creek, and improve aquatic and riparian habitat conditions for resident and migratory native fish and enhance spawning opportunities for fluvial brown trout populations.

C. Brief Project Description:

Johnson Ranch Project is focused on habitat improvement along 2,200 ft. of Cottonwood Creek, an FWP priority tributary to the Upper Clark Fork, in a reach just upstream of Deer Lodge. The project reach has an artificially low sinuosity (1.1), poor riparian vegetation, over 55% of its channel banks are eroding, and berms and rustic riprap has been randomly applied. Pools are generally of poor quality and pool-forming features are absent. Shallow, wide channel conditions with little or no cover is the norm in this reach. This reach is particularly important because it potentially could provide quality habitat, cover, and cooler water temperatures to fluvial fish migrating up through the urban reaches of Cottonwood in the town of Deer Lodge. Cottonwood Creek is host to both fluvial westslope cutthroat and fluvial brown trout.

Project activities include reconstructing approximately 940 feet of new channel alignment to add sinuosity and reduce grade, constructing 1400 feet of inset floodplain benches to provide planting surfaces, flood energy dissipation/bank protection, and install six V-weirs and three rock vanes to improve habitat and stabilize grade, three engineered logjams to dissipate energy and provide habitat, one livestock crossing and 5,000 feet of electric fencing to control livestock access to the restored riparian area. Floodplain benches will be formed with wetland sods (including sedges) from a nearby site on the ranch, and areas with significant shear stress will be planted as "soil lifts" using heavy coir matting to anchor the sod mats. All constructed benches will be underlain with willow sprigs (4-5 per foot) . All floodplain benches will be planted with bare-root native shrubs plants using semi-automated "stinger" technology. The design takes into account the need for a naturalized bankfull channel dimensions, and floodway capacity for a 50-year event. The entire design has been the subject of an extensive study by the WRC's consultant, who produced a complete 106 page document detailing the design and costs.

The landowner is committed to moving a farm road away from the stream channel at key locations, and removing all grazing pressure from the stream corridor using electric fencing. This small ranch only has livestock seasonally, and the ranch owner's objective is to improve fish and wildlife habitat while stabilizing the stream channel with bioengineering techniques. The landowner will contribute substantially to the project construction, donating heavy equipment (e.g. dump trucks with operators) as part of his in-kind contribution.

Cottonwood Creek is a Tier 2 fishery restoration priority tributary in the Upper Clark Fork (UCF) for Montana FWP. The US Forest Service designated Cottonwood Creek watershed a "fish priority" watershed due to its significant pure westslope cutthroat population. A large cutthroat was radio-tracked from the Clark Fork 5 miles up Cottonwood Creek in 2010, indicating the persistence of a fluvial life form in this drainage, one of a very few such populations in the UCF. Brown trout are present, and fluvial and/or resident browns spawn in this reach. The WRC is engaged in a series of other watershed projects in Cottonwood Creek to improve fish passage, habitat and in-stream flow. This project is directly complementary to those efforts, as this the only "non-sustainable" stream reach in the first five miles of stream above Deer Lodge (fide NRCS riparian assessments done by WRC in 2010).

D. Length of stream or size of lake that will be treated: 2200 feet

E. Project Budget:

Grant Request (Dollars): $ 60,558

Contribution by Applicant (Dollars): $ 0 In-kind $ 18,200
(salaries of government employees <u>are not</u> considered as matching contributions)

Contribution from other Sources (Dollars): $ 61,305 In-kind $ 0
(attach verification - See page 2 budget template)

Total Project Cost: $ 140,063

F. Attach itemized (line item) budget – see template

G. Attach specific project plans, detailed sketches, plan views, photographs, maps, evidence of landowner consent, evidence of public support, and/or other information necessary to evaluate the merits of the project. If project involves water leasing or water salvage complete supplemental questionnaire (fwp.mt.gov/habitat/futurefisheries/supplement2.doc).

H. Attach land management and maintenance plans that will ensure protection of the reclaimed area.

III. PROJECT BENEFITS*

A. What species of fish will benefit from this project?:

Pure native westslope cutthroats and fluvial brown trout are the two most important fish using this reach. Brook trout, longnose suckers, largescale suckers, mottled sculpin, slimy sculpin, carp and redside shiner fish also exist in the first one mile reach of Cottonwood Creek.

B. How will the protect or enhance wild fish habitat?:

The project will provide enhanced habitat conditions for salmonid spawning, migration and rearing by restoring the natural channel morphology, improving bank stability, increasing fisheries habitat installing rock/large woody debris and restoring the riparian vegetation community. Summer and winter thermal refuge habitat is expected to be created by enhancement of pools and cover.

C. Will the project improve fish populations and/or fishing? To what extent?:

Its expected to dramatically offer more viable habitat for both native cutthroat and brown trout. In conjunction with other related projects on Cottonwood Creek, we expect a positive response from both cutthroat and brown trout populations.

D. Will the project increase public fishing opportunity for wild fish and, if so, how?:

Public fishing opportunities will not change in the reach. But fishing in the Upper Clark Fork for fluvial run native and sport fish should respond to the Cottonwood Creek watershed efforts.

E. If the project requires maintenance, what is your time commitment to this project?:

The WRC is committed long-term to project maintenance and monitoring on Cottonwood Creek. The location is within one mile of the WRC offices, and there are multiple in-stream flow, passage, and habitat projects in the works which will require long-term monitoring.

F. What was the cause of habitat degradation in the area of this project and how will the project correct the cause?:

The channel was straightened, probably for flood control (unsuccessfully) in the last 35 years. Other flood control efforts damaged the channel banks in 2011. Riparian vegetation was removed historically by channel manipulation and grazing. Historical grazing practices also concentrated animals in this reach. Cottonwood Creek is also de-watered in this reach.

G. What public benefits will be realized from this project?:

The public should see dramatically improved fish and wildlife habitat along the riparian corridor of Cottonwood Creek, improved fluvial trout populations, and smaller loads of sediment discharged downstream once channel banks and form are stabilized.

H. Will the project interfere with water or property rights of adjacent landowners? (explain):

No.

I. Will the project result in the development of commercial recreational use on the site?: (explain):

No

J. Is this project associated with the reclamation of past mining activity?:

No

Each approved project sponsor must enter into a written agreement with the Department specifying terms and duration of the project.

IV. AUTHORIZING STATEMENT

I (we) hereby declare that the information and all statements to this application are true, complete, and accurate to the best of my (our) knowledge and that the project or activity complies with rules of the Future Fisheries Improvement Program.

Applicant Signature: _____ Date: _____

Sponsor (if applicable): _____

***Highlighted boxes will automatically expand.**

Mail To: **Montana Fish, Wildlife & Parks**
Habitat Protection Bureau
PO Box 200701
Helena, MT 59620-0701

Incomplete or late applications will be returned to applicant.

Applications may be rejected if this form is modified.

*****Applications may be submitted at anytime, but must be received by the Future Fisheries Program office in Helena before December 1 and June 1 of each year to be considered for the subsequent funding period.*****